



August 11, 2005

TO: Distribution

FROM: David Morris

SUBJECT: August, 2005 Resource Allocation Review Board (RARB) Meeting Minutes

The following are the Minutes of the NASA/JPL Deep Space Network (DSN) Resource Allocation Review Board (RARB) Meeting held at JPL in conjunction with the monthly JURAP meeting conducted on July 21, 2005 and the results of off-line negotiation that followed that briefing. The purpose of the RARB is to address the oversubscription of the DSN 26/34/70 Meter tracking assets. This August, 2005 Review was restricted to obtaining Projects/Users approval of the proposed DSN Downtimes. Therefore, these minutes reflect discussions on July 21 as well as off-line discussions that resulted in agreements, disagreements and actions because of the RARB Redbook presented on July 21, 2005. In the Final RARB Redbook, agreements are colored green and proposed recommendations that were disagreed with are colored blue. Together, these two documents reflect the results for this RARB.

Attendees: (July 21)

Andujo, A	Frautnick, J.	Morris, D.	Slade, M..
Best, R.	Guduru, S.	No, S.	Ward, C.
Brower, G.	Hodgin, W.	Resnick, M.	Yetter, K.
Casiano, W.	Hampton, E.	Retana, J.	Zamora, K.
Dillard, D.	Lacey, N.	Satterlee, N.	

Introductory Remarks – D. Morris

D. Morris thanked the mission representatives and schedulers for attending the modified RARB and stated that the RARB will be restricted to obtaining the Projects/Users approval of the proposed downtimes contained in the Preliminary August RARB RED BOOK released to all users on Friday, July 15, 2005.

Resource Contention Summary – N. Lacey

The changes since the February 2005 RARB were presented: Project Date Changes, New Projects, and Changes in DSN Resource Support, DSN User / Mission Planning Set, DSN Major Downtimes, and the IND Resource Implementation Planning Matrix.

The Events, Recommendations, and Analysis were presented to the attendees for approval of the proposed downtimes listed below:

2006 Weeks

36 - 40 - DSS-45 Antenna Drive Cabinet Replacement

2007 Weeks

09-13 - DSS-65 Antenna Drive Cabinet Replacement

14-21 - DSS-54 X/X-Ka Band Implementations.

24-37 - DSS-63 Hydrostatic Bearing Assembly

35-39 - DSS-15 Antenna Drive Cabinet Replacement

All Resource Analysis Team (RAT) Recommendations for the above proposed downtimes were accepted during and subsequent to the July 21, 2005 RARB meeting with the exception of 2006, 36-40 DSS-45 Antenna Drive Cabinet Replacement Downtime.

Not all recommendations are in full agreement for July 2007, yet the downtime for DSS-63 will proceed. This period will undergo analysis again at the February RARB.

The following Recommendations to approve the 2006 DSS-45 Antenna Drive Cabinet Replacement Downtime were rejected by the projects indicated.

2006 – September (Weeks 36 – 39)

Cluster 2 SSO move supports from DSS-46/34/45/43 to DSS-46/34/43 in weeks 36, 38 and 39. Move supports from DSS-46/34/45 to DSS-46/34/43 in week 37 and move Cluster 4 MSO supports from DSS-46/34/45/43 to DSS-46/34/43 in week 36.

Cluster 2 rejected the recommendation to remove DSS-45 from during this period. *

2006 – October (Weeks 40-43)

Cluster 2 delete DSS-45 from the antenna resources allocation in week 40.

Cluster 2 rejected the above recommendation to delete DSS-45 from the antenna resources. *

ULYS reduce pass duration from 5 hours to 4 hours and reduce the number of supports per week from 7 to 4.

1. Ulysses agrees to the occasional reduction in pass duration from 5 to 4 hours. ~ The reduction of pass duration has a cumulative effect and continuous days of reduced pass duration compound the difficulty of operations.

2. Ulysses cannot reduce supports from 7 to 4 passes a week. This would be of major significance and have potential to endanger the mission.

* Cluster Project Statement:

“The DSS-45 downtime is particularly troublesome as we had been looking forward to finally having a fall (2006) where all 4 DSN antennas are available at Canberra in order to provide a higher probability of being able to get at least 3 and preferably 4, simultaneous Cluster spacecraft coverage. For both of Mid-Summer through Fall 2004 and 2005, one of the Canberra antennas was down for long term maintenance or upgrade. From a scientific point of view this is devastating to Cluster because Cluster's orbit processes through 24 hours of Magnetic Local time in exactly one year. This means Cluster is in the same Magnetic Local Time (MLT) sector for any specific region of earth at the same time of year every year. Since our

Cluster experiment is real time only (data are never recorded onboard), this means that the spacecraft have to be transmitting data to DSN while in the region of scientific importance and be visible to DSN. Many of the phenomena that we study are MLT dependent. Thus, not being able to obtain data from any one specific region of Earth every year devastates our ability to obtain statistical data that encompass all MLTs. Ultimately statistical studies are what are important rather than case studies which only give glimpses into specific events which may or may not be unique.”

Action Item Summary – D. Morris

D. Morris thanked everyone for attending the meeting and announced that the next regular RARB meeting is scheduled February 14, 2006. Details will be announced at a later date.

New Action Items:

AI#	Year	Month(s)	Project	Responsible	Due Date	Status
01	2006	September/ October	RPS	N. Lacey	09/15/05	Open

Action: Select a new proposed DSS-45 Antenna Drive Cabinet Refurbishment downtime to replace the 2006 Weeks 36 – 40 time periods due to objections from Cluster 2 and Ulysses.

Cluster 2 stated that the inability to obtain data from any one specific region of Earth every year devastates the Project’s ability to obtain statistical data that encompass all Magnetic Local Time sectors.

Ulysses cannot reduce supports from 7 to 4 passes a week without endangering the mission.

Final RARB REDBOOK Version 2.0

Additional Monthly Contentions may not have been resolved due to:

Mars missions percentage of MSPA allocations will be determined by the Mars Project Office during the Mid-Range Scheduling Process

Mars missions uplink allocations during MSPA will be determined by the Mars Project Office during the Mid-Range Scheduling Process

The final August 2005 RARB REDBOOK Final Version 2.0 has been modified to reflect the recommendations that were accepted and rejected by the Projects/Users:

<http://rapweb.jpl.nasa.gov/rarb.html>

Note: Only the recommendation colored “GREEN**” will be implemented in the RARB database.**